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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,154	02/13/2004	Krishna V. Kotipalli	306213.01	5107

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EXAMINER	
SIEDLER, DOROTHY S	
ART UNIT	**PAPER NUMBER**
2626	

NOTIFICATION DATE	DELIVERY MODE
03/19/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/777,154	KOTIPALLI, KRISHNA V.	
	Examiner	Art Unit	
	Dorothy Sarah Siedler	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) *3,7,13,17 and 21-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-6,8-12,14-16 and 18-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In response to applicant's telephonic conversation on February 27th, 2008 regarding the last Office action, the following corrective action is taken.

The period for reply of 1 MONTH set in said Office Action is restarted to begin with the mailing date of this letter.

A copy of the last Office Action is enclosed.

DETAILED ACTION

This office action is in response to the amendment filled September 12, 2007. Claims 1-24 are pending, with claims 1, 4-6,11,14-16 amended and claims 3,7,13,17 and 21-24 canceled.

Response to Arguments

Applicant has successfully amended claim 11 and 16, therefore the objection is withdrawn.

Applicant has successfully amended claims 1,5,10,11 and 15, therefore the 35 U.S.C. 112 second paragraph rejection is withdrawn.

Applicant has successfully amended claims 11 and 16, therefore the 35 U.S.C. 101 rejection is withdraw.

Applicant's arguments filed September 12, 2007 have been fully considered but they are not persuasive.

Applicant argues that, "Yamabani relates to insertion between the keyboard and one or more applications at an application by application level and does not teach a system wide hooking step recited in independent claim 1" (Remarks page 9). However the examiner respectfully disagrees. ***Yamabani*** discloses, "[the system] It captures Japanese input before they are entered to an application, converts it to English, and then sends the result to the application (page 329 section 6, second paragraph). ***Yamabani*** accomplishes this using, "a standard hook and IME API of the operating system, Microsoft Windows 95" (page 330, first paragraph). Applicant's specification states that, "In one embodiment, this keyboard hook may be implemented as a Windows API that is installed to capture all keyboard input prior to being sent to the active window's (i.e. the active application's) input queue" (paragraph [411]). Therefore, the prior art of ***Yamabani*** uses the hook API in exactly the same manner as invention claimed in claim 1, i.e. to capture all text input prior to it being sent to an active application.

In addition, applicant argues that, "while Yamabani teaches the use of hooking for translation it does not teach the system wide hooking recited in independent claim 1, not does it relate to transliteration in any way" (Remarks page 9). However the examiner points out that the use of a hook for input text, using a standard IME API, is independent of the processing that occurs after the input is hooked. ***Yamabani*** is used as prior art to indicate that hooking a text input, as disclosed in claim 1, is well known in the art.

Applicant's remaining arguments with respect to claims 1,11,6 and 16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 6 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 6 and 16 recite, "converting the phonetic string into a third alphabet of a second language, based on a second predefined phonetic mapping scheme between the second alphabet and the third alphabet", however a "third alphabet of a second language" and "a mapping scheme between the second alphabet and the third alphabet" are not disclosed on the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 16 recite, "converting the phonetic string into a third alphabet of a second language, based on a second predefined phonetic mapping scheme between the second alphabet and the third alphabet", however this is ambiguous. It is unclear if the second language corresponds to both the second alphabet (of the previous limitation) and the third alphabet, or to one and not the other. If the second language corresponds to only one of the second or third alphabet, it is unclear as to which one it corresponds.

In light of the aforementioned ambiguities, the claims are interpreted in terms of the prior art indicated below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,2,4,5,11,12,14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Hetherington*** (6,460,015) in view of ***Yamabana*** ("An Interactive Translation Support Facility for Non-Professional Users" ANLP 19971).

As per claims 1 and 11, ***Hetherington*** discloses a computer-implemented method for inputting languages into a computing device comprising:

> Receiving phonetic text input in a first alphabet of a first language intended as input for an active application executing on the computing device, wherein an input mode of the active application is set to a second language (column 1 lines 47-5, Figure 3, item 302, and column 1 lines 55-65, *input text of one language, entered by a headquarters IS staff, is transliterated into text of a different language, that language the local language of a country where the IS network is running*);
>
> Converting the phonetic text input to the language that uses a second alphabet, said converting based on a mapping scheme (column 1 lines 47-54 and column 2 lines 50-55); and
>
> passing the converted text input to an active application executing on the computing device (column 15 lines 11-28, *the input and transliteration are displayed in the data processing system user interface display*).

Hetherington does not disclose hooking the text input, wherein the hooking step occurs at the system wide level. ***Yamabana*** discloses a system that translates input text from one language to another, using a standard hook and IME API (page 330, first paragraph). Since text input from, for example, a keyboard is input at the system level, the hook must have been implemented at the system level.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to hook the text input, wherein the hooking step occurs at the system level in ***Hetherington***, since it would allow the hooking and subsequent processing to be used as an add on function to any application, enabling the user to work in a familiar document writing environment, as stated in ***Yamabana*** (page 330, first paragraph).

As per claims 2 and 12, ***Hetherington*** in view of ***Yamabana*** disclose the method of claims 1 and 11, however ***Hetherington*** does not disclose wherein the hooking step comprises a keyboard hook trapping the input. ***Yamabana*** discloses a system that translates input text from one language to another, using a standard hook and IME API (page 330, first paragraph) as an intermediate application. The system of ***Yamabana*** is intended for use in a word processing environment, which inherently accepts keyboard input. Therefore the hook must have been used to process all keyboard input, i.e. text input, and direct it to the IME API.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a keyboard hook to trap the input in ***Hetherington***, since it would enable the system to ensure that all the pertinent input, i.e. keyboard text input, is transliterated according to the settings chosen by the user, thus increasing the accuracy of the output transliteration.

As per claims 4 and 14, ***Hetherington*** in view of ***Yamabana*** disclose the method of claims 1 and 11, however ***Hetherington*** does not disclose wherein an active accessibility API is used to keep track of the active application. ***Yamabana*** discloses a system that translates input text from one language to another, using a standard hook and IME API (page 330, first paragraph) as an intermediate application. In addition, API's are generally used as an interface to perform specific functionality, as requested by a computer program. The functionality described by the API can include several classes or several related functions, or a single function or procedure. An API enables functionality to be realized with the use of a function call, rather than describing of how information is organized in memory addresses and system registers.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use an active accessibility API to keep track of the active application in ***Hetherington***, since there are many already developed fully functional API's available, for example the Windows API of WinAPI, thus saving time and resources needed to develop an API.

As per claims 5 and 15, ***Hetherington*** in view of ***Yamabana*** disclose the method of claims 1 and 11, and ***Hetherington*** further discloses wherein the text input to the application is provided by a keyboard layout corresponding to the first alphabet that is different from a keyboard layout corresponding to the second alphabet to which the

phonetic input is converted (column 7 lines 25-35, *text input using a Latin character set is transliterated into another language*).

Claims 6, 7-10, 16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Hetherington*** in view of ***Davis*** (5,432,948).

As per claims 6 and 16, ***Hetherington*** discloses a computer readable storage medium having computer executable instructions stored thereon that when executed cause a computing device to perform a method for transliterating languages in the computing device comprising:

Receiving a text string in a first alphabet of a first language (column 1 lines 47-54, Figure 3, item 302);

Converting the text string to a text string in a second alphabet, based on a first predefined phonetic mapping scheme between the first alphabet and the second alphabet(column 1 lines 47-54 and column 2 lines 50-55);

Converting the phonetic string into a third alphabet of a second language, based on a second predefined phonetic mapping scheme between the second alphabet and the third alphabet (column 14 lines 57-67 and Figure 3, item 316, *interim characters*);

However, ***Hetherington*** does not disclose displaying a system-level menu bar with menu items, the menu items including an option to transliterate the text string,

wherein the converting steps are initiated by selecting the transliterate option. ***Davis*** discloses displaying a system-level menu bar with menu items (column 4 lines 60-65). In addition, menu items are commonly used within software applications to enable the user to initiate processing tasks. Menu items are often used an alternative to automatic processing, enabling the user to dictate the when and how input data should be processed.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to display a system-level menu bar with menu items, the menu items including an option to transliterate the text string, wherein the converting steps are initiated by selecting the transliterate option in ***Hetherington***, since it would enable the user to control the amount of input data, and when that input data is processed, i.e. transliterated.

As per claims 8 and 18, ***Hetherington*** in view of ***Davis*** disclose the method of claims 6 and 16, however ***Hetherington*** does not disclose wherein the first language is a western language and the second language is an Indic language. ***Davis*** discloses wherein the first language is a western language and the second language is an Indic language (column 4 lines 27-30).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to run the system when the first language is a western language and the second language is an Indic language in ***Hetherington***, since it would enable the

system to be used globally, regardless of the local language, thus maximizing the usefulness of the system.

As per claim 9 and 19, ***Hetherington*** in view of ***Davis*** disclose the method of claims 6 and 16, however ***Hetherington*** does not explicitly disclose wherein the first language is an Indic language and the second language is another Indic language. ***Davis*** discloses a system that performs transliterations on various languages, including Devanagari (Hindi). There may be languages where a complete transliteration between a first and second language is not known. In these cases a preliminary translation may be necessary, for example to translate from English to Arabic, then from Arabic to Farsi. The mapping from English to Arabic, then from Arabic to Farsi can be used to transliterate English to Farsi. This method can also be use for dialects, for example from English to formal Arabic, then from formal Arabic to any of its dialects.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to transliterate between Indic languages in ***Hetherington***, in order to map a phonetic string in one language to a phonetic string in another language using a preliminary mapping, for the instance where a direct mapping from the first to second language is now known.

As per claims 10 and 20, ***Hetherington*** in view of ***Davis*** disclose the method of claims 6 and 16, and ***Hetherington*** further discloses displaying the converted text string on an output device (Figure 4a and 4b).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Sarah Siedler whose telephone number is 571-270-1067. The examiner can normally be reached on Mon-Thur 9:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSS

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER